

AUTHORS: ~~Zegenesku, F., Engineer~~, Belya, K., SOV/29-58-9-11/30
Engineer

TITLE: From the Work of an Institute (Iz rabot odnogo instituta)

PERIODICAL: Tekhnika molodezhi, 1958, Nr 9, pp 18 - 19 (USSR)

ABSTRACT: 1) An Instrument for Measuring Mechanical Stress: An instrument was developed in the RPR (Rumanian People's Republic) which permits to measure by optical methods the distribution, the direction and the magnitude of stress in models subjected to external stresses. This instrument was designed by the Engineers V.Goran and E.Nikolau.
2) A "CAU-1" Simulator: The "CAU-1" is the first type of an alectronic simulator which was designed and built in the RPR. It permits to solve two problems simultaneously. It was built by a collective of scientists, consisting of S.Shekhter, Candidate of Technical Sciences, F. Muntyanu, Engineer, F. Konstantinesku, Engineer, T.Torsan, Engineer, and I.Endesh, Engineer.
3) Aerodynamical Supersonic Tunnel: Two years ago the first

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From the Work of an Institute

SOV/29-58-9-11/30

aerodynamic tunnel was constructed at the Institute of Applied Mechanics, AS RPh. A second, perfected tunnel was put into operation in 1958. This tunnel was designed by a collective. Among others, P. Ibanid, Candidate of Technical Sciences, and the Engineers E.Tsurkam and Ye.Moisey assisted in the work. There are 4 figures.

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SOV/4-58-11-28/31

AUTHORS: Avetesyan, A., Engineer, and Zeger, K.

TITLE: The Bubbling Layer (Kipyashchiy sloy)

PERIODICAL: Znaniye - sila, Nr 11, 1958, p 36 (USSR)

ABSTRACT: By several examples the authors explain the nature of the "bubbling layer" and the advantages it affords. The bubbling layer gives the possibility to utilize the "unyielding" solid material in the form of powder possessing many of the properties of liquid which makes it much easier to conduct large industrial processes. The transportation of liquid is easier, a flow of liquid can be better controlled and it is simpler to warm and to cool liquid. The authors explain the role which the bubbling layer plays in industry: in gas production, cracking of petroleum, catalytical cracking, calcination of sulfur pyrite in a bubbling layer, production of dyes, etc. The bubbling layer is only beginning to be brought into use in the chemical industry forcing out old labor-consuming processes and increasing manifold the productivity of labor. There are 3 drawings.

Card 1/1

AVETESYAN, A., inzh.; ZEMER, K.

Fluidized bed. Znan.sila 33 no.11:36 N '58.
(Fluidization)

(MIRA 11:12)

"APPROVED FOR RELEASE: 03/15/2001

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APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001964220003-4"

ACC NR: AP7002570

(A, N)

SOURCE CODE: UR/0413/66/000/023/0062/0062

INVENTOR: Ivanov, K. I.; Zeger, K. Ye.; Chmovzh, V. Ye.; Polyakovskaya, V. I.;
Kudryavova, G. V.

ORG: none

TITLE: Method of improving the antiwear and anticorrosion properties of heavy liquid fuels. Class 23, No. 189110 [announced by All-Union Heat Engineering Institute im. F. E. Dzerzhinskiy (Vsesoyuznyy teplotekhnicheskii institut)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 62

TOPIC TAGS: fuel additive, antiwear additive, anticorrosion additive

ABSTRACT:

An Author Certificate has been issued for a method of improving the antiwear and anticorrosion properties of heavy liquid fuels [unspecified], involving the introduction of additives based on compounds, soluble in water or organic media, of the type $MeX_1 + AlX_2$, where Me is Ca, Mg, or Zn, and X_1 and X_2 are anions or functional groups, taken in quantities such that the Al/Me ratio be 0.05 to 0.95.

SUB CODE: 11/ SUBM DATE: 05Apr65/ ATD PRESS: 5112

Card 1/1

UDC: 546.27'261:620.197

GORBANENKO, A.D.; ZEGER, K.Ye.; ZERNOVA, T.A.; IVANOV, K.I.;
LIPSHTEYN, R.A.; LUZHETSKIY, A.A.; POVOLOTSKIY, L.I.

Importance of ash content in boiler fuels for electric power
plants. Standartizatsiia 28 no.1:24-25 Ja '64.
(MIRA 17:1)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001964220003-4

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CIA-RDP86-00513R001964220003-4"

ZEGZHDA, A. S.

~~DECEASED~~ DECEASED 1955

see ILC

Hydraulic Engineering

5

THE PRODUCTION OF LADLE BRICKS FROM COMPOSITIONS CONTAINING NEVYAN KAOLIN. D. I. Gavrish and C. P. Zegzhda. (Ogneupory, 1948, vol. 13, p.99; British Ceramic Abstracts, 1948, Sept., p. 266A). Fired clayware with low porosity is made from vitrified clay in Ural factories by adding Nevyan kaolin. The ware contains Belkin clay, Nizhny-Uvel clay, and about 35% Nevyan kaolin, and has high spalling and slag resistance.

ASM-31A METALLURGICAL LITERATURE CLASSIFICATION

SECTION 1: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

SECTION 2: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

SECTION 3: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

SECTION 4: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

MARTON, G., candidat in stiinte; ZEGHERU, N., ing.

Automatization of the process of stereophotogrammetric use of the
coordinater. Rev geodezie 7 no.1:15-25 '63.

ZECHERU, N.

Bukharin, Nikolai Ivanovich
Vol VI, No 2, 1962

1. "Report of the Committee of Collective Action and the Representation of Agriculture Submitted to the Extraordinary Session of the Grand National Assembly of the Session of 27 April 1952." On. GÜNGÖRÜ: 5-57; pp 3-32.
2. "The 712 Gevcekte Agricultural Network in the Western Part of the Country Carried Out in Various Industries Systems and the Feasibility of Its Application in Anatolia State Geodesic Research," İktisadi ve İdari Bilimler Dergisi (Journal of the Department of Economics and Administrative Sciences) (Central Economic and Administrative Sciences), pp 31-42.
3. "The Law No. 18, 21/11/58 Protection of Income in Production," İktisadi ve İdari Bilimler Dergisi (Journal of the Department of Economics and Administrative Sciences), pp 45-52.
4. "The Feasibility of Adopting the Plan for the Organization of Territory," İktisadi ve İdari Bilimler Dergisi (Journal of the Department of Economics and Administrative Sciences), pp 53-59.
5. "Programs for the Expeditions Organization of the Territory in Support of the Socialist Legislative Drafts," İktisadi ve İdari Bilimler Dergisi (Journal of the Department of Economics and Administrative Sciences), pp 61-68.
6. "The National Economy," İktisadi ve İdari Bilimler Dergisi (Journal of the Department of Economics and Administrative Sciences), pp 69-82.

1524
C90: 2000-11

1/1

~~MEHERU, Nicolae~~
SURNAME, Given Names

~~ZEGERO~~

Country: *ZEGHERU, NICOLAE*
Rumania

Academic Degrees: [not given]

Affiliation: General Directorate of Geotopography and of the Territory's
Organization of the Ministry of Agriculture (Directia Generala
~~Source~~ Geotopografica si a Organizarii Teritoriului din Ministerul
Agriculturii).

~~Data~~
Source: Bucharest, Revista de Geodezie si Organizarea Teritoriului, No 3,
1961, pp 41-46.

Data: "Concerning the Preparation of a Fundamental Topographic Plan of the
Country."

Co-author:

NICOARA, Nicolae,
General Directorate of Geotopography and of the Territory's
Organization of the Ministry of Agriculture.

GPO 981643

CYGAN, Z.; KUSMIERSKI, S.; DROZDZ, M.; ZEGLIN, S.; ZAK, T.

Assessment of the clinical usefulness of the determination of serum mucoproteins in surgical diseases. Wiad. lek. 18 no.20: 1603-1608 15 0 '65.

1. Z Zakładu Chemii Fizjologicznej (Kierownik: prof. dr. S. Jozkiewicz) i z II Kliniki Chir. Śląskiej AM w Zabrze (Kierownik: prof. dr. J. Gasinski).

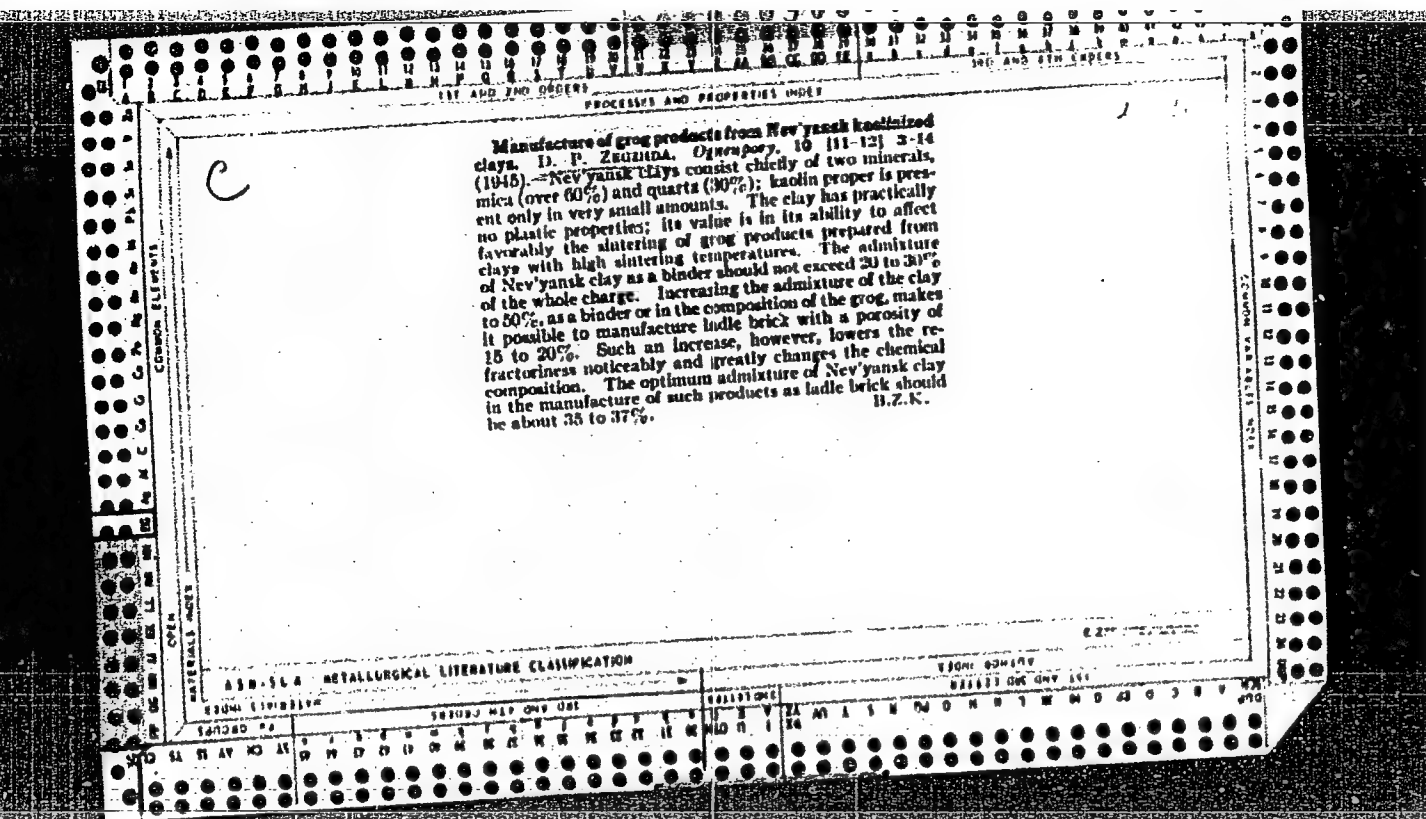
ZEGORENKOV, I. P.

"Ways to Increase Labor Productivity during the Cleaning and
Chopping of Castings."

report presented at the Leningrad Regional Conference on Progressive Foundry Practice,
Leningrad, 8-12 Dec 1959.

19

Changes and corrosion of blast-furnace brick in service.
D. P. Zeghda. (Zhurnalov 5, 440-68(1937).—Results
are given of an investigation on a blast furnace of 822
cu. m. capacity producing 757 tons of iron per day.
B. Stefanowsky



ZEGZHDA, D. P.

PA 10/4773

USSR/Minerals
Clays, Aluminum-Containing
Ceramics

Nov 48

"The Use of Southern Ural Clay for the Manufacture of
High-Alumina-Content Parts," V. A. Bron, Cand Tech
Sci, D. P. Zegzhda, 9 pp

"Ogneupory" No 11

Reports experiments. Discusses effect of mixture
composition on agglomeration of parts, effect of paste
treatment, effect of mineralizers, pastes contain-
ing aluminum by-products, and agglomeration of pastes,
made from elutriated Yeleninsk kaolin. Includes 12
tables.

18/49T93

C

PRODUCTION OF LADLE BRICK WITH NEV'YANSK KAOLIN. D. I. Gavrish and D. P. Zegabda. *Chemistry*, 13 [3] 99-104 (1948).-- An account is given of the experience since 1945 of the Nizhne-Tagil'sk refractory plant in the Urals in producing ladle brick with Nev'yansk kaolin. At present the following charge is used: (1) 50% Bel'kinsk clay grog (SiO_2 57.64, Al_2O_3 39.53, and Fe_2O_3 1.55%, refractoriness 1730 C., and water absorption 9.6%); (2) 25% Nizhne-Uvel'sk clay (SiO_2 64.36, Al_2O_3 28.72, Fe_2O_3 1.0, ignition loss 4.58%, and refractoriness 1670). The brick are fired at 1300° and are well sintered because of the high content (4 to 4.5%) of alkali in the kaolin. Characteristics of the brick were as follows: refractoriness 1690°, compressive strength 385 kg./cm.², apparent porosity 18.5%, and reheat shrinkage (at 1400°) 0.15%. The brick passed a thermal-shock test consisting of 10 cycles of heating at 800° C. for 40 min. and cooling in water with a weight loss less than 20%. Resistance to slag and Mn steel was high; washing out and destruction of the lining occurred chiefly along the seams. B.Z.K.

High-alumina ware from clays of the southern Urals. V. A. Bron and
 ✓ D. P. Zegzhda. Ogrnempory, 13, 183-92 (1948). In the manufacture of
 high-alumina ware from clays of the southern Urals, the preparation of
 sintered grog is the chief problem. To solve this, the sintering of the
 following was studied: (a) Buskul'sk clay (I) with technical alumina (II)
 in the presence of mineralizers, (b) tailings (III) from the production of
 Al with I, and (c) washed Eleninsk kaolin (IV) with admixtures of (I) and of
 Chasov Yar clay (V). Samples made from I and II and fired at 1400° to 1460° C.
 showed an increase in porosity with a rise in II up to 50%, but as the content
 of II exceeds 50%, the porosity sharply drops. Simultaneous grinding in a
 ball mill of 30% of I and 70% of II followed by firing at 1460° produced a
 sintered mass, but in the case of a mixture of 30% of II and 70% of I, these
 conditions produced no noticeable effect on sintering; for products fired at
 1400°, however, the porosity decreased with duration of grinding. Mixtures
 containing 15% of II and fired at 1400° and 1460° without any prior grinding
 showed porosities of 3.8 and 2.5%, respectively. The addition of caustic
 magnesite and of alkaline-iron frit produced no substantial effect in the
 sintering of the mixture containing 70% of II. In sintering mixtures of I
 with III, the results were the same as for I with II; the most porous
 products were those containing 50% alumina. In this case, however, satis-
 factory density of mixtures containing 30% of I and 70% of III was obtained
 after firing at 1400° without any prior fine grinding of the mixture. Ware
 made from IV can be sintered satisfactorily provided the material is finely

1ST AND 2ND COPIES										3RD AND 4TH COPIES									
PROCESSING AND PROPERTIES INDEX																			
<p>High-alumina ware from clays of the southern Ural. V. A. IRON AND D. P. ZHIGALOVA. <i>Ogneupor</i>, 13, 483-92 (1948).--In the manufacture of high-alumina ware from clays of the southern Ural, the preparation of sintered grog is the chief problem. To solve this, the sintering of the following was studied: (a) Baskul'sk clay (I) with technical alumina (II) in the presence of mineralizers, (b) tailings (III) from the production of Al with I, and (c) washed Eleninsk kaolin (IV) with admixtures of (I) and of Chasov Yar clay (V). Samples made from I and II and fired at 1400° to 1460°C. showed an increase in porosity with a rise in II up to 50%, but as the content of II exceeds 50%, the porosity sharply drops. Simultaneous grinding in a ball mill of 30% of I and 70% of II followed by firing at 1400° produced a sintered mass, but in the case of a mixture of 30% of II and 70% of I, these conditions produced no noticeable effect on sintering; for products fired at 1400°, however, the porosity decreased with duration of grinding. Mixtures containing 15% of II and fired at 1400° and 1460° without any prior grinding showed porosities of 3.8 and 2.5%, respectively. The addition of caustic magnesite and of alkaline-iron frit produced no substantial effect in the sintering of the mixture containing 70% of II. In sintering mixtures of I with III, the results were the same as for I with II; the most porous products were those containing 50% alumina. In this case, however, satisfactory density of mixtures containing 30% of I and 70% of III was obtained after firing at 1400° without any prior fine grinding of the mixture. Ware made from IV can be sintered satisfactorily provided the material is finely ground in a ball mill or 1% of caustic magnesite is added. Mixtures of IV with 15% of I or V can also be sintered satisfactorily. On the basis of the laboratory experiments, the manufacture of stoppers (47 to 50% Al_2O_3) and nozzle brick (40 to 45% Al_2O_3) was organized, using I with II; porosity of the products was 17 to 21%. The stoppers proved satisfactory when tested in 185 ton ladles.</p> <p style="text-align: right;">H.Z.K.</p>																			
<p>ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																			
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1ST AND 2ND

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH INDEX

Bottom casting refractories from Ural clays for pouring tire rim steels. D. P. Zagladina. *Ogneupory*, 15 [1] 9-18 (1950).—The low stability of bottom casting refractories made from Ural clays resulted in increased scrap of tire rims because of the large number of nonmetallic inclusions. To correct this, extensive laboratory tests were conducted with ordinary grog mixes, semiacid mixes, and high-alumina mixes, utilizing fire clays from the three principal deposits in the Urals. In preparing semiacid mixes, the grog was partly or completely replaced with quartz sand. Kaolin was added to some mixes to reduce the porosity. For comparison, basic and semiacid mixes with Chasov-Yar clay bond were also prepared. Mixes made with 20% water were rammed in molds, dried, and fired at 1320°C. Steel containing C 0.6, Mn 0.82, Si 0.28, P 0.031, S 0.022, and Cu 0.42% was used to test erosion by the following methods: (a) crucibles were filled with metal shavings, fired at 1450°, and held for 12 hr.; (b) tubes (150 x 20 mm.) were placed on refractory plates and filled with molten metal at 1500°. After cooling, the shapes were broken and the surface was examined for erosion. The least erosion was shown by shapes made with Chasov-Yar clay and by those made with Nev'yansk kaolin. In all cases, resistance to washout by the

metal increased with increasing density of the body regardless of the chemical composition. Change in grain size of the grog had little effect upon the porosity. Washout resistance increased with increasing content of fine fractions but thermal resistance decreased. On this basis, casting shapes were made from the following mixes: (1) Nizhne-Uvel'sk clay 27.5, Nev'yansk kaolin 27.5, Belkinsk grog 25, and Nizhne-Uvel'sk sand 20%; and (2) Nizhne-Uvel'sk clay 27.5, Nev'yansk kaolin 27.5, and Belkinsk grog 45%. The shapes were tested under actual production conditions in pouring rim steel (0.7 to 0.85% Mn) at 1490° to 1600°. Shapes from mix 2 were superior, with a washout of 0.6 mm. during the pouring process (7 to 8 min.). For large-scale production, the clay content was slightly increased and the kaolin content decreased to improve the working properties of the mix. The accepted composition was 30% Nizhne-Uvel'sk clay, 25% Nev'yansk kaolin, and 45% Belkinsk grog. Over 150 tons of various shapes were made from this mix and tested in the pouring of 12 heats. The average washout was 0.46 mm. compared with 1.5 to 1.7 mm. for ordinary (without kaolin) shapes during the same period. The chief factor which determines washout resistance is the density of the shape. For shapes of the same porosity but of different composition, intended for pouring Mn steels, the advantage lies with those having a high alumina content and a low silica content, particularly in the form of free quartz.

B.Z.K.

COMMON ELEMENTS

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COMMON VARIABLES INDEX

Effect of technological factors on the properties of high-grog shapes from Ural clays. V. A. Buzon and D. P. Zuev. *Ogneupory*, 15 [4] 100-79 (1960). -- The raw materials used were Belkin (I), Huskul (II), Nizhne-Urel (III), and Bogdanovich (IV) clays. Analysis of I, II, III, and IV showed SiO_2 40.40, 53.10, 58.50, and 40.48%; Al_2O_3 30.55, 33.17, 28.24, and 38.27%; Fe_2O_3 3.25, 1.71, 2.32, and 0.73%; CaO 0.38, 0.44, 0.33, and 0.38%; MgO 0.45, 0.57, 0.65, and 0.51%; and ignition loss 13.24, 11.10, 9.74, and 13.82%, respectively; refractoriness values were 1730°, 1700°, 1670°, and >1730°C. Briquettes made by plastic and semidry methods were fired at 1350° and 1420° and then ground. Mixes were prepared from 80% grog and 20% clay. The grog was first moistened with the slip and mixed, then the binder was added, and the mix was again mixed. The slip contained 65% water and was made from ground clay with 1% sulfite liquor by weight of dry material. Cylinders 38 to 50 mm were made from the mix under 300 kg/cm²; some were fired at 1350° and held for 4 hr., while others were fired at 1420° to 1430° and held for 12 hr. The shapes were subjected to physicochemical tests, using standard methods; slag resistance was measured by placing an open-hearth slag tablet analyzing CaO 41.60, Fe_2O_3 1.88, FeO 3.50, MnO 6.65, MgO 8.05, SiO_2 28.7, and Al_2O_3 8.82% on top of the shape, heating it in a furnace to 1420°, holding for 13 hr., and then observing the nature and extent of destruction. In making grog from I and III, the water absorption depended on the method of briquetting, being twice as high by the semidry as by the plastic method; for IV, the method of briquetting had

practically no effect on the water absorption of the grog. Rise in temperature from 1350° to 1420° resulted in considerable increase in the density of grog from I, in no noticeable change in the density of grog from IV, and in a sharp increase in the porosity of grog from III. Grog from III made by the plastic method exhibited considerable swelling. Sintering of high-grog shapes was considerably affected by the grain size of the grog. When certain temperatures are reached (in this case 1430°), the chief factor, which determines the sintering of the product, is the disperse grog particles (at least not over 0.008 mm), as the quantity of these particles increases, the sintering improves. Activation of the disperse particles takes place at high temperatures, being 1120° to 1130° in this case. Grains of 0.5 to 0.008 mm have no effect upon the sintering, and if there is a relatively small content of the 0.008 mm grains, they hinder the sintering. When the firing temperature is not high enough to activate the disperse grog particles, an excess of these may affect the extent of sintering adversely. In this case, an increase of grains less than 0.5 mm results in increased porosity; for each group of mixes with a constant content of grains less than 0.5 mm., there is an optimum amount of disperse fractions less than 0.008 mm. The nature of the binding clay had no substantial effect on the density of shapes, but it did affect the temperature of deformation under load. Temperatures of deformation under load were close for I, II, and IV but much lower for III. The moisture content of the mix affected the properties of the shapes substantially; an increase of

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moisture to 8 to 10% increased the bulk weight of the green product after drying and the density after firing. The effect of wetting was more pronounced with rising pressure of forming, particularly for fine grain size. The method of working the mix was an important factor in determining the properties of the shapes. Simultaneous treatment of grog and clay in a ball mill produced the highest density and slag resistance. Satisfactory shapes were also obtained by treating the mix in runner mills. With increasing pressure of forming, the porosity and slag attack decreased. For pressures over 500 kg./cm², increase in density was less pronounced; pressures of 500 to 600 kg./cm² are considered most desirable. The firing temperature should be not less than 1420° to 1430°.

B.Z.K.

BCS

Refractories

1377. The use of bottom-pouring refractories in relation to their properties. D. P. ZIGZUDA (*Ognespory*, 18, 453, 1931). In a previous article it was asserted that the refractory does not contaminate the steel to any considerable extent. The author supports this view on the basis of extensive tests. Four types of refractories were used including high-quality fireclay products and graphite-fireclay bricks (containing 25% flake graphite, 45% grog, and 30% clay). Results showed that density and thermal stability have a noticeable effect on the behaviour of products in service. However, no relationship could be found between the amount of non-metallic inclusions in the steel and the wear of the refractories. The graphite grog refractories showed an extremely high stability; it is assumed that between these and the metal there is no chemical reaction whatever, the slight wear that there is being due solely to erosion. The general use of clay-graphite products is considered impracticable, however. (4 figs., 3 tables.)

1688. The relationship between the wear of refractories and non-metallic inclusions in steel. —V. A. BARN and D. P. ZAKHAROVA (*Otkrytiya*, 16, 318, 1951). Various causes of inclusions are discussed. An investigation was carried out to elucidate the influence of each type of refractory coming in contact with steel (ladle bricks, runner bricks, etc.) on the inclusions forming in it. Expts. with firebrick ladle refractories showed that the refractories are one of the causes of inclusions. The comp. of inclusions showed that the thermal and mechanical actions are of the greatest significance for the wear. Particles of refractory react chemically with FeO and MnO. The quantity and comp. of inclusions separated electrolytically at different stages of the steelmaking process are tabulated. The SiO_2 content in the inclusions of samples taken from the furnace and from the ladle is low (4 times lower than that of Al_2O_3). Since the decomp. products from the refractories should always contain more SiO_2 than Al_2O_3 , refractories cannot be the main cause of inclusions, although they do take part in their formation. (2 figs., 3 tables.)

ZEGZHDA, D.P.; ARZUMANOV, M.A.; LEVITAS, Ye.G.; FROLOVA, A.I.;
DUDAVSKIY, I.Ye.

Properties of grog obtained by burning certain clays in
rotary kilns. Ogneupory 31 no.1:5-10 '66.

(MIRA 19:1)

1. Dnepropetrovskiy metallurgicheskiy institut (for Zegzhda,
Arzumanov, Levitas, Frolova). 2. Zaporozhskiy ogneupornyy zavod
(for Dudavskiy).

32777

S/137/61/000/012/002/149

AC06/A101

15.2630

AUTHORS: Zegzhda, D.P., Radchenko, I.I.

TITLE: Investigation of heat conductivity and thermal expansion of aluminosilicate masses

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 12, 1961, 4, abstract 12B18 ("Tr. Nauchn. tr. Dnepropetrovsk. metallurg. in-t", 1958, no. 36, 95 - 104)

TEXT: The method of non-stationary heat process was employed to determine heat conductivity of roasted specimens, 40 mm in diameter, of four compositions: Al_2O_3 , $Al_2O_3 \cdot 2SiO_2$, $Al_2O_3 \cdot SiO_2$ and $Al_2O_3 \cdot 4SiO_2$, in pure state and with admixtures of 2% MgO or TiO_2 . The nature of changes in the heat conductivity with changing volumetric weight was determined not from the ratio of the main oxide components but from the presence and nature of mineralizers, which accelerate the formation of mullite and thus change the structure of the body and its properties. In pure masses, heat conductivity increases gradually with higher temperatures; in masses with admixtures it increases rapidly up to 500 - 600°C, passing through a maximum, and then decreases. This is explained by the high

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A006/A101

Investigation of heat conductivity ...

degree of the crystalline phase development. The highest thermal expansion determined by VNIIO differential dilatometer, was observed in pure masses; mineralizers MgO , TiO_2 and K_2O reduce thermal expansion.

N. Molchanov

[Abstracter's note: Complete translation]

Card 2/2

15.2610

32778

S/137/61/000/012/003/149

AC06/A101

AUTHORS: Zegzhda, D.P., Klimkovich, N.S.

TITLE: The dependence of elastic properties of alumo-silicate masses on the nature of the depleting agent and bond

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 12, 1961, 4, abstract 12B20 ("Sb. nauchn. tr. Dnepropetr. metallurg. in-t", 1959, no. 38, 101 - 111)

TEXT: It was established that changes in the chemical and mineralogical composition of the depleting agent and the bond caused changes in the nature of the dependence between the modulus of elasticity and the grain composition because 1) in the case of masses with quartzite, changes in the modulus of elasticity do practically not depend on temperature (such a phenomenon was not observed when investigating refractory masses); 2) at all roasting temperatures, the modulus of elasticity increased to maximum values at a content of fractions of < 0.088 mm equal to 20% (for refractory masses the maximum value of the modulus of elasticity was shifted to 30 - 40% content of fine fraction depending on the roasting temperature); 3) the degree of variation in the values of the modulus

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S/137/61/000/012/003/149
A006/A101

The dependence of elastic properties ...

of elasticity with a changing content of fine fractions is considerably higher for masses with quartzite than for refractory masses, when changes in the modulus of elasticity proceed smoothly. The investigation has shown that the presence or absence of various admixtures and differences in the structure of the initial raw material may exert a decisive effect on the formation of elastic properties of alumo-silicate articles at equal technological parameters of manufacture.

V. Oparysheva

[Abstracter's note: Complete translation]

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ZEGZHDA, D.P.

Destruction process of aluminosilicate products under the
effect of thermal shocks. Izv.vys.ucheb.zav.; Chern.Met.
no.4:169-170 '60. (MIRA 13:4)

1. Dnepropetrovskiy metallurgicheskiy institut.
(Aluminum silicates--Thermal properties)

VOLSHTEYN, L.M.; ZEGZHDA, G.D.

Complex compounds of bivalent platinum with valine. Zhur.neorg.khim.
7 no.7:1525-1529 JI '62. (MIRA 16:3)

1. Dnepropetrovskiy khimiko-tehnicheskoy institut imeni F.E.Dzerzhinskogo.
(Platinum compounds) (Valine)

VOLSHTEYN, L.M.; ZEGZHDA, G.D.

Mutual transformation of isomers of platinum divalene.
Zhur.neorg.khim. 7 no.10:2315-2319 0 '62. (MIRA 15:10)

1. Dnepropertovskiy khimiko-tekhnologicheskii institut imeni
F.E.Dzerzhinskogo.
(Platinum compounds) (Valine) (Isomerization)

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<p><i>Handwritten: 30</i></p> <p>Peat-tar residue for the rubber industry. N. S. Gorbushin and E. P. Zegzhda. <i>J. Rubber Ind. (U. S. S. R.)</i> 12, 490-2 (1965). Peat tar is obtained as a by-product (0.7%) of peat during the process of gas and coke manuf. From the tar the residue is obtained (about 25.4-44.0%) by means of direct fractionation. "Rubberax" was obtained from peat-tar residue. Peat-tar residue proved very satisfactory in rubber soles and ebonite. A. P.</p>																																																			
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ZEGZHDA, S.A.

Longitudinal impact with allowance for local deformation under conditions of linearity. Vest. LGU 20 no.13:94-106 '65. (MIRA 18:7)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001964220003-4

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001964220003-4"

ZEGZHDA, S.A.

Longitudinal impact of a body against a rod allowing for local deformation. Vest. LGU 20 no.7:106-117 '65. (MIRA 18:5)

L 1969-66 EWT(d)/EWT(m)/EWP(w) EM

ACCESSION NR: AP5019931

UR/0043/65/000/003/0094/0106

AUTHOR: Zegzhda, S. A.

26
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B

TITLE: On longitudinal impact with local contortion in a linear formulation

SOURCE: Leningrad. Universitet. Vestnik. Seriya matematiki, mekhaniki i astro-
nomii, no. 3, 1965, 94-106

TOPIC TAGS: stress analysis, differential equation, approximation method

ABSTRACT: Central longitudinal impact of a body on a rod is studied with simultaneous attention paid to local deformation and the propagation of deformation waves through the rod. The case of a semi-infinite rod is considered in greatest detail. It is shown that in this case and under certain assumptions the solution of the problem in dimensionless variables depends only on a single parameter, which --if less than unity--becomes Saint-Venant's solution and--if greater than unity--Hertz's solution. The relation of the impact parameters with the above parameter for the case of local deformation is given in tabular form. A linear relation is substituted for the nonlinear relation between the force of contact and the local contortion, and the error thus arising from this linearization is shown graphi-

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ACCESSION NR: AP5019931

cally. The solution of the given problem for a finite rod is also offered. In addition, an approximate formulation is given for the problem involving the collision of a body with a rigidly fixed rod, which reduces to the same problem for a spring loaded at one end. "In conclusion, the author expresses his gratitude to G. N. Bukharinov for his valuable suggestions and attention to this paper."

Orig. art. has: 49 formulas, 5 figures, 2 tables.

ASSOCIATION: none

SUBMITTED: 10Dec63

ENCL: 00

SUB CODE: MA, ME

NO REF SOV: 004

OTHER: 001

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CIA-RDP86-00513R001964220003-4"

S/043/63/000/001/010/011
D218/D308

AUTHOR: Zegzhda, S. A.

TITLE: Oscillations of an asymmetric body suspended from elastic supports

PERIODICAL: Leningrad. Universitet. Vestnik. Seriya matematiki, mekhaniki i astronomii, no. 1, 1963, 145-148

TEXT: The author discusses the oscillations of an elastically suspended body with one plane of symmetry for a circular motion of the base. It is assumed that the center of gravity lies on the line connecting the points of attachment of the suspensions to the body, and that the tension in the supports is large compared with the weight of the body. Assuming that the oscillations are small, a general solution of the Lagrange equation is derived, and formulas are obtained for the frequencies of the natural oscillations. These frequencies were checked experimen-

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Oscillations of an...

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D218/D308

tally and the agreement between the experimental and theoretical values was 8% on the average.

SUBMITTED: April 24, 1962

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19

ZEGZHDA.V.

Velocity of temperature increase in testing deformation [of refractory clays].
Y. Znosovskaya. Trans. Ceram. Research Inst. (Moscow) No. 24, 66-73 (1970).—The
rate of heating greatly affected results and must not exceed 10° per min. M. V. K.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

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ZEGZHDA.V

Processes and Properties Index

Influence of the size of the load on the deformation of refractories at high temperatures. V. ZEGZHDA. Trans. Caucas. Research Inst. (Leningrad) No. 34, 63-77 (1932).—Expts. with refractories under load (1-5 kg./sq. cm.) at high temps. showed that deformation depends on the chemico-mineralogical and granulometric compn. and that the test load of 2 kg.-sq. cm. is the most suitable. M. V. KONDOROV

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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1940-1949

1950-1959

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1970-1979

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2000-2009

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ZEGZHDA, V. P., Cand Tech Sci -- (diss) "Graphite-content refractories, their properties, and application." Leningrad, 1960. 19 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Leningrad Order of Labor Red Banner Technology Inst im Lensovet, Chair of Technology of Refractory Materials); 200 copies; price not given; (KL, 26-60, 135)

15 (2)

AUTHORS:

Zegzhda, V. P., Kablukovskiy, A. F.,
Laktionov, V. S., Skorokhod, S. D.

SOV/131-59-9-7/12

TITLE:

The Use of Graphite Chamotte Bricks in Steel Casting Ladles and Gutters for Steel Melting Furnaces

PERIODICAL:

Ogneupory, 1959, Nr 9, pp 419-423 (USSR)

ABSTRACT:

The Vsesoyuznyy institut ogneporov (All-Union Institute for Refractories) has carried out experiments with graphite-chamotte bricks, containing 15% and 25% of graphite, in 80 t ladles of the Izhora Works. In the "Elektrostal'" works experiments were made with 20 t casting ladles with graphite-chamotte bricks of the Borovichi Kombinat for refractories. The properties of the bricks are shown in table 1. The wear of the test bricks, burnt at high temperatures, is indicated in table 2. In casting steels of the types 10-45, EShKh15, 20G, 37KhN3A, 15KhFA, 20Kh, EU8, and U10A at the "Elektrostal'" works the graphite chamotte lining of the ladle has not exercised any influence on the carbon content of the metal. The composition of the mortar used may be seen from the table 3. Figures 1 and 2 (photos) show the condition of the joints, made from mortar Nr 1 and Nr 2 after

Card 1/3

The Use of Graphite Chamotte Bricks in Steel
Casting Ladles and Gutters for Steel Melting Furnaces

SOV/131-59-9-7/12

10 melts. Data concerning the stability of the test ladles are given by table 4, and table 5 contains data concerning the wear of the lining of the ladle. The installation of a thermocouple for measuring the metal temperature in the ladle is represented in figure 3, and the respective measuring results are compiled in table 6. Figure 4 shows the manner in which the side walls of the casting gutters are subject to wear.

Conclusions: When casting dead, bubble-free, steel with a carbon content of more than 0.5% the graphite-chamotte lining of the ladle does virtually not exercise any influence upon the carbon content of the metal. It must still be found out whether this lining can be used when casting steel with a lower carbon content. In order to prevent the destruction of the joints, the use of a special mortar is recommended. Owing to their higher heat-conductivity it is not advantageous to employ graphite-chamotte bricks for lining the bottom of the ladles. A further paper in this field will deal with the changes in the shape and the dimensions of these products, as well as the reduction of their heat conductivity. The necessity is stressed of an industrial production of the graphite-chamotte bricks.

Card 2/3

The Use of Graphite Chamotte Bricks in Steel
Casting Ladles and Gutters for Steel Melting Furnaces

SOV/131-59-9-7/12

There are 4 figures, 6 tables, and 7 references, 5 of which
are Soviet.

(V. P. Zegzhda)

ASSOCIATION:

Vsesoyuznyy institut ogneporov (All-Union Institute for
Refractories). Zavod "Elektrostal'" ("Elektrostal'" Works)

Card 3/3

15 (2)

AUTHOR:

Zegzhda, V. P.

SOV/131-59-7-8/14

TITLE:

Production Experiments and Operation Tests of Graphite Firebricks (Opyty izgotovleniya i ispytaniye v sluzhbe grafito-shamotnogo kirpicha)

PERIODICAL:

Ogneupory, 1959, Nr 7, pp 325-329 (USSR)

ABSTRACT:

The Vsesoyuznyy institut ogneuporov (All-Union Institute of Refractories) tested the influence of small admixtures of flaky graphite on the properties of fire-clay masses. Masses with an admixture of from 5 to 30 % of crucible graphite of the ZT brand were investigated. Latnenskiy clay of the first type was used as a binder, and fire clay of this type was used for leaning. The results of the laboratory tests are indicated in table 1, and the corrosion by slag is shown in figure 1. To clarify the possibility of using refractory graphite fire-clay products in steel ladles, 3 sample lots of bricks were made and tested. The first lot was made in the "Krasnyy tigel" Works from layers with 15-25 % graphite (Table 2), and tested in the ladles of the Izhoriski Works. At a content of 25 % graphite, the ladle bricks endured 15 melts, which exceeded the stability of firebricks 2 to 3 times. At the Borovichi Kombinat of

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Production Experiments and Operation Tests of
Graphite Firebricks

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Refractories, the second lot of graphite-fire-clay ladle bricks of the brands KP-7, KP-8 and KP-9 was manufactured. Chasov-Yar half-acid clay of the Ch2PK brand with low shrinkage was used as a binder. This lot was made with 15 % foundry graphite of the KLZ-1 brand. In experiments, the metal in the ladle started intensely boiling which caused an intense destruction of the seams of the lining (Fig 2). Among other things, it was assumed that the ladle was insufficiently dried, which was, however, doubted by the editors of the periodical (Footnote 1), and it was recommended to check this assertion. At the Borovichi Kombinat, the third experimental lot of bricks with a content of from 20 to 25 % graphite of the ZT and KLZ-1 brands was prepared. A mixture of clay types of the LLPS and Chl brands was used as a binder. The mass composition, the properties of the products, and the experimental results of the sample lots of bricks are indicated in table 2. A mortar of sand, clay, graphite, and ferro-silicon was ascertained by experiments. The state of the seams of the ladle lining with this mortar after 10 melts is shown in figure 3. The wear of the lining and of the mortar proved to be low. The experiments

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Production Experiments and Operation Tests of Graphite Firebricks SOV/131-59-7-8/14

in this field must, however, be continued. It was found that the channels of the Martin and electric melting furnaces made of these bricks last 4-8 times longer than the usual ones. There are 3 figures, 2 tables, and 8 references, 4 of which are Soviet.

ASSOCIATION: Vsesoyuznyy institut ogneporov (All-Union Institute of Refractories)

Card 3/3

GORDEYEV, N.P.; ZEGZHDA, V.P.; KONAREV, M.U.; SHALKOV, K.A.; KONOVALOV, Ya.A.

Using refractory materials containing graphite for transferring liquid metals by an electromagnetic method. Ogneupory 26 no.6:292 '61. (MIRA 14:7)

1. Vsesoyuznyy institut ogneuporov (for Gordeyev, Zegzhda).
2. Borovichskiy kombinat ogneuporov (for Konarev, Shalkov, Konovalov).

(Refractory materials)
(Smelting)

ZEGZHDA, V.P., inzh.

Graphite molds for bimetallic rods. Biul. TSNIIKHM no.6:38-43 '58.
(Molding (Founding)) (MIRA 11:5)

Zegzhda, V. P. Character and destruction of blast refractory linings. *Ukrainian Journal of Chemistry* (1957). The greatest destruction of the refractory lining occurs in the upper part of the shaft. The destruction of the refractories in the lower part of the furnace is promoted by gaseous reagents, such as CO and zinc vapors, besides mechanical causes. The penetration of zinc and carbon into the pores of the refractory greatly lowers the resistance of the lining. To prolong the life of the refractory, based in the upper part of the furnace, should possess greater resistance to penetration, while those used in the lower part should be more porous.

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9 - (11) - 4

Laboratory kryptol furnace for temperatures up to 2000°. V. P. ZEGHDA. *Ogneupory*, 14 [1] 22-27 (1949).—Details are given on the selection of highly refractory materials and design of a laboratory kryptol furnace for use in determining refractoriness up to 2000°C. A cylinder was prepared from a mixture of 75 silicon carbide and 25% Latna clay, while the tubes were made from a mixture of 2 lime and 98% electrofused magnesite which contained 3% more MgO than metallurgical magnesite and was practically free of alkali. The cylinder was fired at 1630°, but the tubes were unfired. The tubes consisted of 60 to 70 mm. sections placed together and surrounded with kryptol; they lasted 10 to 12 tests. Characteristics of the furnace are as follows: 60 to 80 volts; 250 to 300 amp.; energy consumption to reach 2000°, 35 to 40 kw.-hr.; time required to reach 2000°, 3.5 to 4 hr. The design is shown. R.Z.K.

Zegzhda, V. P. LADLE BRICK BASED ON LOW-FIRED
Cement, Dnepropetrovsk, 3 101 218-24 (1957)

Zeylida, Y. P. *Manufacture of Grog Products from New Zealand Kaolinitic Clays*, pp. 10 (11-12) 3-14 (1945).--New Zealand clays consist chiefly of two minerals, mica (over 60%) and quartz (30%). Kaolin proper is present only in very small amounts. The clay has practically no plastic properties; its value is in its ability to affect favorably the sintering of grog products prepared from clays with high sintering temperatures. The admixture of New Zealand clay as a binder should not exceed 20 to 30% of the whole charge. Increasing the admixture of the clay to 40% as a binder or in the composition of the grog, makes it possible to manufacture ladle brick with a purity of 15 to 20%. Such an increase, however, lowers the refractoriness noticeably and greatly changes the chemical composition. The optimum admixture of New Zealand clay in the manufacture of such products as both brick and tile is about 35 to 37%.

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These conclusions are in accord or compatible with the literature data of (1) New Zealand clays with the mica content of 60% to 80% and quartz content of 20% to 40% which are technically in favor of partial disposition of mica in the manufacture of grog products.

Keller, E. I., and ~~Zegzhda~~, V. P. MANUFACTURE OF REFRACTORIES FROM LOW-FIRED Grog. Trudy Vsesoyuz. Inst. Ogneuporov, No. 19, 41-98 (1940).--As a result of many experiments, the production of refractories from low-fired grog was developed. The advantages of this type of refractory are (1) low cost of manufacture, (2) greater production yield of the grinding equipment, (3) the use of coarser granulometric grog composition, and (4) easier drying. Disadvantages are (1) higher moisture content in the worked mix and (2) greater shrinkage of the product. The finished products show denser bodies and a high mechanical resistance. Moreover, they are more slag resistant and have a low gas permeability.

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K
Keter, E. K., and Zegzhda, V. P. REFRACTORY BRICK WITH LOW-FIRED Grog. *Ogneshtoye*, 3 (1972) 11-12 (USSR).
An investigation undertaken under plant conditions showed the possibility of obtaining satisfactory grog refractories of large shapes (for blast furnaces), with grog fired at low temperatures (up to 400 to 450°). Accurate drying and a slow rise of the firing temperature of the brick in the interval 900 to 1300° are essential. The use of low-fired grog results in brick with a higher density and better mechanical properties and with fewer cracks. The efficiency of the method consists in lowering fuel and grinding costs. Slag-resisting refractories could be expeditiously produced by this method; its use for the production of glass-furnace blocks, stoppers, and other refractories for steel casting should be investigated.

AUTHOR INDEX	MATERIALS INDEX
<p>Zeghida, V. P. TESTING METHODS FOR THE THERMAL STABILITY AND ADDITIONAL SHRINKAGE OF LIGHTWEIGHT REFRACTORIES. <i>Ogneupory</i>, 8, 31, 177-78 (1970).—Methods developed by Z. at the Leningrad Institute for Refractories are described.</p>	

ZEGZHDA, V. P.

Zegzhda, V. P. LADLE BRICK BASED ON LOW-FIRED
BRICK. Dzhugbury, 3 (19218-21) (1031)

ZEGZHDA, V.P.

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Laboratory kryptol furnace for temperatures up to 2000°. V. P. Zegzhda, *Uchenyye*, 14 (1) 22-27 (1949).—Details are given on the selection of highly refractory materials and design of a laboratory kryptol furnace for use in determining refractoriness up to 2000°C. A cylinder was prepared from a mixture of 75 silicon carbide and 25% Latna clay, while the tubes were made from a mixture of 2 lime and 98% electrofused magnesite which contained 3% more MgO than metallurgical magnesite and was practically free of alkali. The cylinder was fired at 1580°, but the tubes were unfired. The tubes consisted of 60 to 70 mm. sections placed together and surrounded with kryptol; they lasted 10 to 12 tests. Characteristics of the furnace are as follows: 60 to 80 volts; 250 to 300 amp.; energy consumption to reach 2000°, 35 to 40 kw.-hr.; time required to reach 2000°, 3.5 to 4 hr. The design is shown. B.Z.K.

ZEGZINEA, V. P.

Methods of testing thermal stability and reheat shrinkage of lightweight refractories, S. V. GIBBOY AND V. P. ZEGZINEA, *Vsesoyuz. Gosdort. Inst. Nauch.-Issledovatel. i Proekt. Rabot Ogneupor. Prom., Inst. Ogneupor., Legkov. Ogneupory*, 1945, pp. 31-39. —In the absence of a panel installation, the thermal-shock cycle consisted of heating in an electric furnace followed by cooling in air. Products of low thermal stability should be heated to 850°C. and those of high thermal stability, to 1300°. In testing reheat shrinkage, the authors suggest a test temperature of 1400°, rise of temperature to occur in not less than 20 hr., holding at 1400° for 24 hr., use of an oil-fired heating furnace with oxidizing atmosphere, and the use of whole brick.

B. Z. K.

ZEGZHDA, V. P.

Zegzuda, V. P. MANUFACTURE OF Grog PRODUCTS.
Rostov-Na-Donu Manufacturing Plant. December 7, 1910.
[11-12] 5-14 (1916).—New Zealand clays consist chiefly
of two minerals, mica (over 60%) and quartz (30%);
kaolin proper is present only in very small amounts.
The clay has practically no plastic properties; its value is
in its ability to affect favorably the sintering of grog prod-
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tures. The admixture of New Zealand clay as a binder
should not exceed 20 to 30% of the whole charge. In-
creasing the admixture of the clay to 50% as a binder or
increasing the admixture of the grog makes it possible to main-
tain in the composition of the products a higher percentage of man-
ufacture ladle brick with a porosity of 15 to 20%. Such
an increase, however, lowers the strength noticeably
and greatly changes the chemical composition. The
optimum admixture of clay in the manufacture
of such products as tank brick is about 35 to 37%.

These provisions are in accord with the policy of the Government to encourage the free circulation of goods and services and to promote the development of the national economy. It is the policy of the Government to encourage the free circulation of goods and services and to promote the development of the national economy.

PA 52/49T36

ZEGZHDA, V. P.

USSR/Engineering
Refractory Materials
Furnaces

Jan 49

"Selection of High-Temperature Refractory Materials
and the Development of Designs for a Kryptol Labo-
ratory Kiln for Temperatures up to 2,000 Degrees,"
V. P. Zegzhda, 6 pp

"Ogneupory" No 1

Conducted experiments to determine best-type
refractory material for kryptol furnaces operat-
ing at temperatures of 2,000°. Made test batches
with metallurgical magnesite and magnesite alloys
melted in electric furnaces. Furnace built as a
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FDD

USSR/Engineering (Contd)

Jan 49

Result of the tests had these characteristics:
Pipes, 60 mm in diameter, were manufactured from
magnesite melted in an electric furnace. Heating
cylinder was manufactured from carbondium.

FDD

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ZEGZHDA, V. P.

AUTHOR INDEX	MATERIALS INDEX
<p>Zegzhda, V. P. TESTING METHODS FOR THE THERMAL STABILITY AND ADDITIONAL SHRINKAGE OF LIGHTWEIGHT REFRACTORIES. <i>Ornamenty</i>, 8, 171-76 (1940). Methods developed by Z. at the Leningrad Institute for Refractories are described.</p>	

ZEGZHDA, V. P.

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Zegzhda, V. P. Characterization of blast-
resistant refractory linings of the upper part of
the furnace. The greatest destruction of the refractory lining
occurs in the upper part of the shaft. The destruction of
the refractory in the lower part of the furnace is due
to the action of various factors, such as the penetration of
besides mechanical erosion. The penetration of zinc and
carbon into the pores of the refractory greatly lowers the
resistance of the brick. To increase the life of the refrac-
tory, brick used in the upper part of the furnace should
possess greater resistance to pressure and wear while those
used in the lower part should be more delicate.

A.C.S.

Glass

Pot mixes for making plate glass. V. P. ZHOZHDA
Trudy Vsesoyuz. Inst. Osnovnykh, No. 30, pp. 3-34 (1941).
The composition of different pot mixes is analyzed, and
directions for their manufacture are given. M.V.C.

A.C.S.

Refractories

Testing methods for the thermal stability and additional shrinkage of lightweight refractories. V. P. ZKUSHA. *Ognesopory*, 1940, No. 2, pp. 171-76. — Methods developed by Z. at the Leningrad Institute for Refractories are described. M.V.C.

1204. PRODUCTION OF REFRACTORIES FROM SOFT-FIRED GROG. Kaler, E.K. and Zagzhda, V.P. (Trudy Vsesoyuz Inst. Ogneuporov, 1940, No.19, 41.)	
<p>A detailed laboratory study of production factors associated with the use of soft-fired grog is reported. The effects of the proportions of grog, ranging from 30-50%, its grading, and the firing temperature of the product were investigated using two clays; parallel trials based on hard-fired grog were carried out. The properties of grog fired at 850°C., its behaviour in mixtures, and the peculiar needs of the products in firing are discussed at length. The results led to a number of industrial trials which are reported favourably. Firebricks made from soft-fired grog are shown to be denser, stronger, to have a higher refractoriness-under-load value and greater resistance to slag attack and to abrasion, than bricks based on hard-fired grog. A high degree of resistance to spalling can also be developed. In steel ladles they are said to give an increase in life of 30-50%. Against these facts must be set certain production iddifficulties, e. g. the</p>	
<p>438.514 METALLURGICAL LITERATURE CLASSIFICATION</p>	
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slow firing necessitated by the large amount of shrinkage, and the consequent drop in productivity of Hoffmann and chamber kilns. The products are also rather sensitive to variations in the raw materials. Plastic and semi-plastic forming methods were used; a slight preference for the latter is expressed.

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<p><i>Zaguda, V. P. TESTING METHODS FOR THE THERMAL STABILITY AND ADDITIONAL SHRINKAGE OF LIGHTWEIGHT REFRACTORIES. <i>Ogneyay</i>, 8 (3) 171-75 (1940).-- Methods developed by Z. at the Leningrad Institute for Refractories are described.</i></p>																																																																													

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Zeghda, V. P. MANUFACTURE OF Grog PRODUCTS FROM NEW-YANSKIL KAOLINIZED CLAYS. <i>Ogurepory</i> , 10 [11-12] 3-14 (1943).—New-Yanskil clays consist chiefly of two minerals, illite (over 60%) and quartz (30%); kaolin proper is present only in very small amounts. The clay has practically no plastic properties; its value is in its ability to affect favorably the sintering of frog products prepared from clays with high sintering temperatures. The admixture of New-Yanskil clay as a binder should not exceed 20 to 30% of the whole charge. Increasing the admixture of the clay to 50%, as a binder or in the composition of the frog, makes it possible to manufacture ladle brick with a porosity of 15 to 20%. Such an increase, however, lowers the refractoriness noticeably and greatly changes the chemical composition. The optimum admixture of New-Yanskil clay in the manufacture of such products as ladle brick should be about 35 to 37%.																																																							

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<p><i>R</i></p> <p>Zepher, V. P. LADLE BRICK BASED ON LOW-FIRED GROG. <i>Oznenkov</i>, 5 [8] 218-24 (1937).</p>																																																				1ST AND 2ND LETTER													3RD AND 4TH LETTER													5TH AND 6TH LETTER													7TH AND 8TH LETTER												
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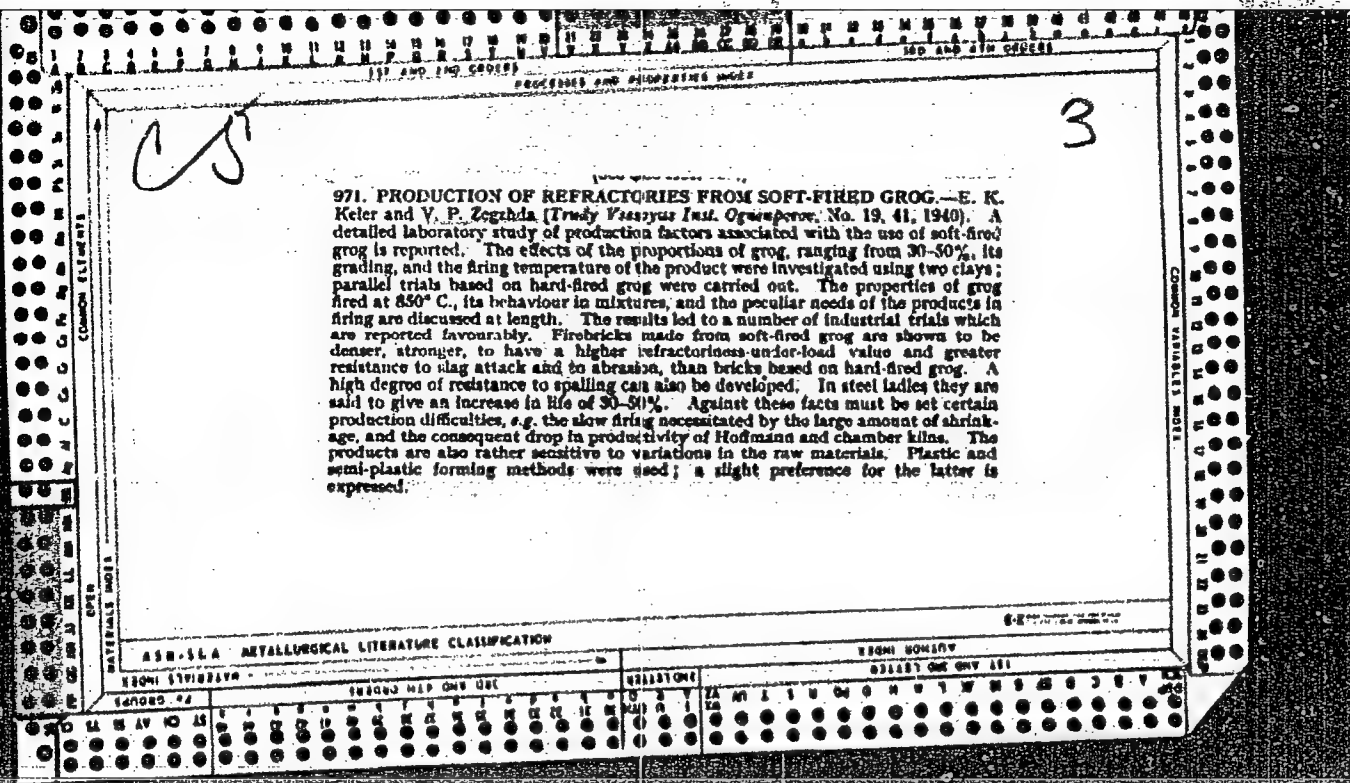
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<p>Zaglad, V. P. CHANGES AND DESTRUCTION OF BLAST-FURNACE BRICK IN SERVICE. <i>Ognyeny, 3 [7] 440-58 (1937).</i>—The greatest destruction of the refractory lining occurs in the upper part of the shaft. The destruction of the refractories in the lower part of the furnace is promoted by gaseous reagents, such as CO and zinc vapors, besides mechanical causes. The penetration of zinc and carbon into the pores of the refractory greatly lowers the resistance of the brick. To increase the life of the refractory, brick used in the upper part of the furnace should possess greater resistance to pressure and wear while those used in the lower part should be more dense.</p>																																																																																																							

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<p><i>R</i></p> <p>Keller, E. L. and Zeghda, J. D. MANUFACTURE OF REFRACTORIES FROM COAL-VAPOUR CROUS. <i>Troudy Vysokaya. Inst. Ogneuporov</i>, No. 19, 41-48 (1940) — As a result of many experiments, the production of refractories from low-fired grog was developed. The advantages of this type of refractory are (1) low cost of manufacture, (2) greater production yield of the grinding equipment, (3) the use of coarser granulometric grog composition, and (4) easier drying. Disadvantages are (1) higher moisture content in the worked mix and (2) greater shrinkage of the product. The finished products show denser bodies and a high mechanical resistance. Moreover, they are more slag resistant and have a low gas permeability.</p>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

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K										<p>Keler, E. K., and Zegzhda, V. P. REFRACTORY BRICK WITH LOW FIRED GROG. <i>Uspenye</i>, 8 (1): 26-34 (1935). An investigation undertaken under plant conditions showed the possibility of obtaining satisfactory grog refractories, even of large shapes (for blast furnaces), with grog fired at low temperatures (up to 800 to 900°). Accurate drying and a slow rise of the firing temperature of the brick in the interval 900 to 1300° are essential. The use of low-fired grog results in brick with a higher density and better mechanical properties and with fewer cracks. The efficiency of the method consists in lowering fuel and grinding costs. Slag-resisting refractories could be expediently produced by this method; its use for the production of glass-furnace blocks, stoppers, and other refractories for steel casting should be investigated.</p>									

1ST AND 2ND CROSS		PROCESSING AND PRODUCTION INDEX		3RD AND 4TH CROSS	
CA				19	
<p>Pot mixes for plate glass. V. P. Zeghida. <i>Trudy Vsesoyuz. Inst. Okeanografii</i> 20, 2-31(1941).—Extensive expts. were conducted with pot mixes from Latna and Chasov-Yar clays. Life of pots is defd. primarily by resistance to glass attack, thermal stability, and resistance to deformation at high temps. Pots made from Chasov-</p>					
<p>Yar semichel clay (SiO₂ 64.71, TiO₂ 1.35, Al₂O₃ 23.72, Fe₂O₃ 1.07, CaO 0.60, MgO 1.24, K₂O 0.60, Na₂O 0.52, SO₃ 0.22, and ignition loss 0.29%) proved unsatisfactory because of the lack of stability at high temps. Satisfactory results were obtained with Chasov-Yar clay No. 6 (best grade) (SiO₂ 63.60, TiO₂ 1.47, Al₂O₃ 20.56, Fe₂O₃ 1.26, CaO 1.08, MgO 0.70, K₂O 1.07, Na₂O 0.70, SO₃ 0.20, and ignition loss 0.05%) and Latna clay Ic (SiO₂ 48.24, TiO₂ 1.01, Al₂O₃ 35.31, Fe₂O₃ 1.05, CaO 0.87, MgO</p>					
<p>0.52, K₂O 0.84, Na₂O 0.10, SO₃ 0.22, and ignition loss 11.49%). Pots made from Latna clay Ic showed much greater stability than those made from Chasov-Yar clay No. 6. In using Latna clay Ic, best results were obtained with a mix consisting of 32% clay and 68% low-fired (780°) grog with a max. grain size of 3 mm. Because of the difficulty in prepg. a dense, sintered body from Latna clay Ic, the following precautions should be observed: prepg. of grog at 800-850°, good wetting and working of the mix, usual drying of the pot, and firing of pot at temp. not below 1150-1200° at a rate to ensure even shrinkage of the pot. The following initial curve is recommended: 5°/hr. up to 200°, 20°/hr. from 200 to 800°, 10°/hr. from 800 to 1000°, holding at 1000° for 10 hrs., and 5°/hr. from 1000 to 1200°. With high-fired (1350°) Latna and Chasov-Yar grog, the max. grain size is 1.5 mm.; smaller grain size lowers thermal stability while larger grain size decreases the resistance against glass attack and may cause the appearance of stones in the glass. When high-fired grog is used, the amts. of Latna and Chasov-Yar grog in the mix should be 60% and 65%, resp. B. Z. K.</p>					
<p>ASB.SLA METALLURGICAL LITERATURE CLASSIFICATION</p>					
<p>REGIONAL DIVISION</p>					
<p>ISSUED MAP ONLY USE</p>					
<p>ISSUED MAP ONLY USE</p>					

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
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<p>Methods of testing thermal stability and reheat shrinkage of lightweight refractories. S. V. Glebov and V. P. Zegzhda. <i>Vsesoyuz. Gosudarst. Inst. Nauch.-Issledovatel. i Proekt. Rabot Ognenpor. Prom., Inst. Ognenpor., Legkov. Ognenpor</i> 1943, 31-9.—In the absence of a punch installation, thermal shock cycle consisted of heating in an electric furnace followed by cooling in air. For products of low thermal stability, heating should be to 850° and for those of high thermal stability, 1300°. In testing reheat shrinkage, the following procedure is suggested: test temp. of 1400°, rise of temp. to occur in not less than 20 hrs., holding at 1400° for 24 hrs., use of oil-fired heating furnace with oxidizing atm., and use of whole bricks.</p> <p style="text-align: right;">B. Z. Kamich</p>																			
<div style="display: flex; justify-content: space-between;"> 100-1000 100-1000 </div>																			
<div style="display: flex; justify-content: space-between;"> 100-1000 100-1000 </div>																			



PROCESSIES AND PROPERTIES INDEX

70 AND 4TH FLOOR

1ST AND 2ND ORDER

Laboratory kryptol furnace for temperatures up to 2000°.

V. P. Zegahla. Oganovsky 14, 22-27(1949).—Details are given on selection of highly refractory materials and design of a lab. kryptol furnace for use in detg. refractoriness up to 2000°. The cylinder was prepd. from a mixt. of 78% Si carbide and 22% latna clay while the tubes were made from a mixt. of 95% lime and 5% electrofused magnesite which contained 3% more MgO than metallurgical magnesite and was practically free from alkali. The cylinder was fired at 1550° while the tubes were unfired. The tubes consisted of 60-70-mm. sections placed together and surrounded with kryptol and lusted 10-12 tests. Characteristics of furnace: (A) 80 v., 250 amp., en-ergy consumption to reach 2000° 33 kw.-hrs., time required to reach 2000° 3.5-4 hrs. B. Z. Kamikh

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F 1204. PRODUCTION OF REFRACTORIES FROM SOFT-FIRED GROG. Keler, E.K. and Zogzhda, V.P. (Trudy Vsesoyuz Inst. Ogneuporov, 1940, No.19, 41.)

A detailed laboratory study of production factors associated with the use of soft-fired grog is reported. The effects of the proportions of grog, ranging from 30-50%, its grading, and the firing temperature of the product were investigated using two clays; parallel trials based on hard-fired grog were carried out. The properties of grog fired at 850°C., its behaviour in mixtures, and the peculiar needs of the products in firing are discussed at length. The results led to a number of industrial trials which are reported favourably. Firebricks made from soft-fired grog are shown to be denser, stronger, to have a higher refractoriness-under-load value and greater resistance to slag attack and to abrasion, than bricks based on hard-fired grog. A high degree of resistance to spalling can also be developed. In steel ladles they are said to give an increase in life of 30-50%. Against these facts must be set certain production difficulties, e. g. the

slow firing necessitated by the large amount of shrinkage, and the consequent drop in productivity of Hoffmann and chamber kilns. The products are also rather sensitive to variations in the raw materials. Plastic and semi-plastic forming methods were used; a slight preference for the latter is expressed.

16

Selection of Highly Refractory Materials and Design of Laboratory "Kryptol" Furnace for Temperatures Up to 2000°C. (In Russian.) V. P. Zakhuda. *Opyechnyye (Refractories)*, Jan. 1949, p. 32-27.

Describes a furnace using resistance elements of a material known as Kryptol. Method of construction and composition of the refractory material used are indicated.

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Laboratory Kryptol Furnace for Temperatures up to 2000°
[Ol. V. P. Zozhula. (Ganeupory, 1949, vol. 14, No. 1, pp.
22-27 [in Russian]. American Ceramic Abstracts, 1949,
vol. 32, Sept., pp. 214-215).

ANALYTICAL LITERATURE CLASSIFICATION

Laboratory kryptol furnace for temperatures up to 2000°. V. P. Zaitseva. *Chem. Rev.* 14(1) 23-27 (1946). Details are given on the selection of highly refractory materials and design of a laboratory kryptol furnace for use in determining refractoriness up to 2000°C. A cylinder was prepared from a mixture of 75 silicon carbide and 25% Latna clay, while the tubes were made from a mixture of 2 lime and 98% electrodeused magnesite which contained 3% more MgO than metallurgical magnesite and was practically free of alkali. The cylinder was fired at 1500°, but the tubes were unfired. The tubes consisted of 60 to 70 mm. sections placed together and surrounded with kryptol; they lasted 10 to 12 tests. Characteristics of the furnace are as follows: 60 to 80 volts; 250 to 300 amp.; energy consumption to reach 2000°, 35 to 40 kw.-hr.; time required to reach 2000°, 3.5 to 4 hr. The design is shown. R.Z.K.

11.2.5.

Method of testing thermal stability and reheat shrinkage of lightweight refractories. S. V. GLEBOV AND V. P. ZHIGALOVA. *Vsesoyuz. Gosudarst. Inst. Nauch.-Issledovatel. i Proekt. Rabot Ognenupor. Prom., Inst. Ognenupor., Legkov. Ognenupory*, 1945, pp. 31-39. -- In the absence of a panel installation, the thermal-shock cycle consisted of heating in an electric furnace followed by cooling in air. Products of low thermal stability should be heated to 850°C. and those of high thermal stability, to 1300°. In testing reheat shrinkage, the authors suggest a test temperature of 1400°, rise of temperature to occur in not less than 20 hr., holding at 1400° for 24 hr., use of an oil-fired heating furnace with oxidizing atmosphere, and the use of whole brick. B.Z.K.

Br. Abr.

BT-4, Glass, ceramic

Production of refractories from soft-fired grog. E. K. Keler and V. P. Zegzhda. (Trudy Vsesoyuz. Inst. Ognesuporov, 1940, No. 10, 41; Brit. Ceram. Abs., 1946, 173a).—The effects of the proportions of grog (30–80%), its grading, and the firing temp. of the product were studied using two clays; parallel trials based on hard-fired grog were made. The properties of grog fired at 850°, its behaviour in mixtures, and the peculiar mode of the products in firing are discussed. Firebricks made from soft-fired grog are denser, stronger, and have a higher refractoriness-under-load val. and greater resistance to slag attack and to abrasion than those made from hard-fired grog. A high degree of resistance to spalling can be developed. In steel ladles they give an increased life of 30–80%. These advantages are offset by production difficulties, e.g., slow firing necessitated by the large amount of shrinkage and the consequent drop in productivity of Hoffmann and chamber kilns. The products are also sensitive to variations in the raw materials. Plastic and semi-plastic forming methods were used; the latter is slightly preferable. R. H. CLARKE.

1ST AND 2ND SUBJECTS		PROCESSING AND REPORTING MODES		1ST AND 2ND SUBJECTS	
<p>4340. SELECTION OF HIGHLY REFRACTORY MATERIALS AND DESIGN OF LABORATORY "KRYPTOL" FURNACE FOR TEMPERATURES UP TO 2000°C. Zegshda, V.P. (Ogneupory (Refractories), Jan. 1949, 22-27). Describes a furnace using resistance elements of a material know Kryptol. Method construction and composition of the refractory material used are indicated. B.L.R.</p>					
<p>ASIS-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>					
1ST AND 2ND SUBJECTS		PROCESSING AND REPORTING MODES		1ST AND 2ND SUBJECTS	
1ST AND 2ND SUBJECTS		PROCESSING AND REPORTING MODES		1ST AND 2ND SUBJECTS	

Method of testing the spalling resistance and additional shrinkage of light-weight refractories. V. P. Zerkova, *Ogneupory* 5, 171-6(1940).—Best methods were the 12-hr. heating of $40 \times 40 \times 60$ -mm. prisms in an oil-fired furnace and the so-called panel method. R. R. S.

A.C.S.

Refractories

Manufacture of refractories from low-fired grog.
H. I. KELLER AND V. P. ZAGUDA. *Trudy Vsesoyuz. Inst. Ognestroya*, No. 10, pp. 41-48 (1960).--As a result of many experiments, the production of refractories from low-fired grog was developed. The advantages of this type of refractory are (1) low cost of manufacture, (2) greater production yield of the grinding equipment, (3) the use of coarser granulometric grog composition, and (4) easier drying. Disadvantages are (1) higher moisture content in the worked mix and (2) greater shrinkage of the product. The finished products show denser bodies and a high mechanical resistance. Moreover, they are more slag resistant and have a low gas permeability.
M.V.C.

MARANTS, A.G.; ZEGZHD, V.P.; TIKHONOVA, L.A.; SOKOLOV, V.I.; RYBNIKOV, V.A.
[deceased]; DEREVYANCHENKO, L.D.; KARKLIT, A.K.; AKSEL'RAD, E.A.;
SARMIN, A.P.; FEL'DGANDLER, G.G., red.; MAK SIMOV, Ye.I., red. izd-va
KARASEV, A.E., tekhn. red.

[Handbook of refractory materials, products, and raw materials;
compiled according to state standards and technical specifications]
Spravochnik na ognepurnye izdeliia, materialy i syr'e. Sostavlen po
gosudarstvennym standartam i tekhnicheskim usloviyam. Izd.2., ispr.
i dop. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvet-
noi metallurgii, 1961. 338 p. (MIRA 14:9)

1. Sotrudniki Vsesoyuznogo instituta ogneporov (for all except
Fel'dgandler, Maksimov, Karashev).

(Refractory materials--Standards)

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23970

S/131/61/000/006/003/003
B105/B206

AUTHORS:

Gordeyev, N. P., Zegahda, V. P., Konarev, M. U., Shalkov,
K. A., Konovalov, Ya. A.

TITLE:

Experience in the use of graphite containing refractory
materials for pumping over liquid metals by the electro-
magnetic method

PERIODICAL: Ogneupory, no. 6, 1961, 292

TEXT: This article deals with the problem of the transportation of
liquid metals by means of electromagnetic pumps, for the solution of
which high-quality refractory materials are necessary. The high thermal
and slag stability, non-wettability by metals and other properties of
graphite containing refractory materials led to the assumption that they
are suitable for this purpose. The testing of graphite containing
refractory materials in steel discharge shutes, made according to the
method of the VIO, Vsesoyuznyy institut ogneuporov (All-Union Institute
of Refractory Materials) jointly with the Borovichskiy kombinat ogneuporov
(Borovich Combine of Refractory Materials) showed positive results: the
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Experience in the use of graphite ...

graphite containing chamotte products were highly resistant against washing out by the stream of liquid metal, and warranted an increase of the stability of the discharge-shute lining by four to ten times. The All-Union Institute of Refractory Materials, jointly with the avtozavod im. Likhacheva (Automobile Plant imeni Likhachev) experimentally produced a graphite containing chamotte lining for an electromagnetic shute for pumping over liquid crude iron, as well as an electromagnetic measuring hopper in an iron foundry. After three tests of pumping over liquid crude iron, the 6 m long shute lining did not show any signs of washing out or destruction. The development of the induction method for pumping over liquid crude iron will necessitate the establishment of a special department for the manufacture of graphite containing refractory materials. There is 1 figure.

ASSOCIATION: Vsesoyuznyy institut ogneuporov (All-Union Institute of Refractory Materials) N. P. Gordeyev, V. P. Zegzhda; Borovichskiy kombinat ogneuporov (Borovichi Combine of Refractory Materials) M. U. Konarev, K. A. Shalkov, Ya. A. Konovalov

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PHASE I BOOK EXPLOITATION

SOV/5865

Zegzhda, V. P., L. A. Tikhonova, V. I. Sokolov, A. G. Marants,
V. A. Rybnikov [deceased], L. D. Derevyanchenko, A. K. Karklit,
E. A. Aksel'rad, and A. P. Sarmin

Spravochnik na ogneupornyye izdeliya, materialy i syr'ye. Sostavlen po gosudarstvennym standartam i tekhnicheskim usloviyam (Handbook of Refractory Products, Materials and Raw Materials. Compiled According to State Standards and Technical Specifications) 2d ed. rev. and enl. Moscow, Metallurgizdat, 1961. 338 p. Errata slip inserted. 12,500 copies printed.

Supervisor: A. G. Marants; Ed.: G. G. Fel'dgandler; Ed. of Publishing House: Ye. I. Maksimov; Tech. Ed.: A. I. Karasev.

PURPOSE: This manual is intended for technical personnel working in ferrous and nonferrous industries and in other branches of industry and construction, for planners, designers, and personnel of technical supply administrations,

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Handbook of Refractory Products (Cont.)

SOV/5865

and for specialists in refractory manufacture and application.

COVERAGE: The manual deals with State standards and technical specifications for refractory ware, materials, and stock used in the construction and repair of furnaces used for smelting, heating, calcination, and distillation, and of fire chambers for boilers and dryers. The specifications also cover other thermal units used for processing under high thermal conditions, but do not include all refractory materials since approximately 10% of them have never been standardized. This edition has been enlarged by the inclusion of data on cast refractories and carbonaceous ware, as well as additional data on refractory stock, magnesite ware, forsterite ware, and metallurgical filler powders. The lists included in the manual contain State standards and specifications approved as late as Mar 1960. No personalities are mentioned. There are no references.

Card 2/8

UZA, G., dr.; BUTNARU, M., dr.; MANASIA, M., dr.; ZEHAN, M., chim.

Considerations on the use of the artificial kidney (based on 100 cases of hemodialysis). Med. intern. 14 no.9:1131-1140 S '62.

1. Lucrare efectuata in Clinica I medicala, Cluj (director: acad. A.Moga).
(KIDNEY, ARTIFICIAL) (ACUTE RENAL FAILURE) (NEPHRITIS)
(TUBERCULOSIS, RENAL) (BARBITURATE TOXICOLOGY) (PREGNANCY COMPLICATIONS)